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ABSTRACT

A high school speech course has been developed which successfully synthesizes student experimental activities in the classroom with traditional rhetorical concepts to provide both a better perspective on the communication process and improved formal and informal communication. Utilized in the course are the four objectives of the inquiry method of learning. inquiry skill, attitude development, value development, and knowledge. The course consists of an introductory presentation and discussion of one or two models of communication, followed by a series of experiments conducted by student groups in and out of class and by the teacher during class time. Assessment of the course has shown that there are a few limitations or problems but that the positive aspects of the course have resulted in high student effort and interest during the course and greater student communicative behavior and awareness. (JM)

A HIGH SCHOOL SPEECH COURSE BASED UPON EXPERIMENTAL ACTIVITIES

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In the 1960's, emerging experimental approaches to speech communication created uncertainties and conflicts within the field. As Huber Ellingsworth notes, ". . . Speech has been troubled by the possibility that its focus may lie as much with the behavioral sciences as with its humanistic past."[1] Donald Smith[2] notes, however, that we are finding new methods and techniques for analyzing the communication act and by blending those new materials with those traditional rhetorical concepts that prove useful we may well be moving toward a synthesis that would provide new and more meaningful speech classroom experiences. In the 1970's, this "new synthesis" seems to be developing in various curricula in numerous locations. Many high school curricula, however, remain largely untouched by the synthesis possibilities.

A proposal for such a synthesis has been developed and successfully implemented in one high school. It represents a shift in method from merely teacher lectures and formal student speeches to a focus on discussion and discovery by the students. The approach involves students in replicating (in simplified form) selected experimental studies of communication, with the students as experimenters or subjects. The

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[1]Huber W. Ellingsworth, "Education in Communication: A Behavioral Approach," Today's Speech, 12 (November 1964), 2.

[2]Donald K. Smith, "What Are the Contemporary Trends in Teaching Speech?" The Speech Teacher, 10 (1961), 87-94.

students are responsible for structuring a hypothesis or question, carrying out the experiment, evaluating the results (utilizing statistical tools where possible), and determining relevant conclusions and implications. The goal of this approach is a better perspective on the entire communication process and improved communication in both formal and informal communication situations, thereby synthesizing humanistic and behavioral, public and interpersonal approaches.

Experimenting for Learning

The crucial concern is not the value of the experiments to formal or informal communication settings but the broader understanding of speech communication. Samuel Becker points out that, "The area that seems most neglected in our curricula is the philosophy of the social sciences. Greater stress must be placed on helping young scholars to learn what "scientific" is and how it differs from other kinds of knowledge. He /the student/ should know the similarities and differences between the scientific approach in the natural or biological sciences and those in the behavioral sciences."[3] This suggests that even adolescents need a fuller understanding of the scientific method, particularly as applied to communication, to cope with the masses of scientific data encountered in and out of school. In speech communication, teachers have "fed" students principles for speaking without much student experience in methods of studying speech communication situations. They have been teaching content as ways to communicate, without focusing attention on methods of studying the communication process. What is needed is a greater interplay of how to communicate with how to study

[3]Samuel L. Becker, "Developing the Empirical Scholar," Western Speech, 31 (1967), 71.

communication.

The "experimental activities" approach is designed to achieve this blend by applying certain recent developments in speech communication and educational theory. One article on speech communication by Buys, Carlson, Compton, and Frank[4] notes various recent changes in the structure and thinking of American society. These changes warrant a change in speech courses to reflect a broader conceptualization of the communication field and to include specific activities that personally involve the student in understanding communication. An approach from educational theory utilized in the course is the so called "inquiry method" of learning which is becoming common in the social studies and humanities. In The New Social Studies[5] Fenton outlines four objectives of inquiry learning. The first is Inquiry Skill which involves recognizing a problem, structuring a hypothesis, gathering data, evaluating data, and evaluating the hypothesis in light of the data. The second is Attitude Development, providing opportunities to interact on a problem to enable students to base decisions on reasoned investigation and not on biased or prejudiced authority. The third, Value Development, challenges the student's values and encourages him/her to reflect on those values in light of new evidence. The final objective, Knowledge, develops in students certain types of knowledge that will help them live more successfully and enjoy their lives more fully. Similar goals are followed by "discovery" approaches applied in language arts and communication classes, and the course herein

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[4]William Buys, Charles Carlson, Hite Compton, and Alan Frank, "Speech Communication in the High School Curriculum," Speech Teacher, XVII (November 1968), 297-317. A17

[5]Edwin Fenton, The New Social Studies (N.Y.: Holt, Rinehart & Winston, 1967).

employs the natural association of scientific method, inquiry learning, and discussion to meet the four general goals above.

The more specific objectives of the course are for the students to:

(1) recognize the complex dynamic nature of the communication process,

(2) identify some of the almost infinite number of variables that affect the communication process,

(3) apply the scientific method to human communication behavior, and

(4) improve their own communication through insights gained from the studies.

The Course Procedures

In preparing for the course, a series of experimental studies has been collected that focus on certain basic concepts of communication. The studies were selected if their content could be made understandable to adolescents, if the technical equipment and the standardized tests required were limited, and if the statistics required were capable of simplification. It must be emphasized, then, that the studies were selected for very definite reasons which can prove to be somewhat restrictive. Nevertheless, the studies do represent a significant body of competent research which will enable the student to better comprehend at least some aspects of the communication process. Taking this collection of studies, the students participate in a replication of them, either as an experimenter or as a participant.

The course begins (1-2 weeks) with the presentation and discussion of one or two models of communication to provide an overall framework

for examining speech communication variables and situations. David Berlo's model[6] has been used for this purpose with the addition of ideas from other models, such as a simplified version of Barnlund's transactional model of interpersonal communication.[7] This opening phase is essential to provide a structure for the course "experiments" and some common vocabulary for discussion. Included are such concepts as variables, cause-effect, hypothesis testing, and control.

The rest of the course consists of a series of "experiments" conducted by student groups in and out of class and by the teacher during class time. These studies generally follow a sequence based upon the model(s) discussed in the first week. To illustrate the experimental activities, the procedure with one research study will be outlined. The class study to be discussed is developed from the work of Ernest Thompson[8] on the organization of messages.

First, the procedures of the study as originally done by Thompson are presented and discussed, but the hypotheses and results are not revealed yet. Next, the students are asked to write out a possible hypothesis for the study. Each of the students' hypotheses about organization are discussed in class with strengths and weaknesses noted in order to arrive at well-stated and reasonable hypotheses for this experiment. They are then instructed to write a speech, for use in the study, with

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[6]David K. Berlo, The Process of Communication: An Introduction to Theory and Practice (New York: Holt, Rinehart and Winston, 1960), pp. 40-72.

[7]Dean C. Barnlund, "A Transactional Model of Communication," in Foundations of Communication Theory, eds. Kenneth K. Sereno and C. David Mortensen (New York: Harper and Row, 1970), pp. 83-102.

[8]Ernest Thompson, "An Experimental Investigation of the Relative Effectiveness of Organizational Structure in Oral Communication," The Southern Speech Journal, XXVI (Fall 1960), 59-69.

an introduction, a body and a conclusion. They also construct a ten question objective test covering the main points of information in the speech. After these parts of the project are completed, the instructor checks for any problems.

Next, each of the speeches is presented to the speech class and an audiotape made of the presentation. The ten item test is administered and the scores recorded. This provides for a comparison with the results of the taped versions.

Using the tapes made in the first presentation, half of the speeches are randomly disorganized within the introduction, body and conclusion by cutting and resplicing the tapes. All the speeches are then played to other classes in the school and the content tests administered. Finally, the two sets of scores (organized and disorganized) are compared and conclusions are drawn about the original hypotheses.

The points that may be discussed in light of this experiment are many: 1) the whole idea of what is effective organization, 2) other variables that might have accounted for the results, 3) the effect of a speech actually being presented versus a tape being used, and 4) the differences between classes and audiences. As a result the student would have a clearer idea that organization is not an easy concept to define, understand, or apply, and that disorganization as defined in the experiment may not necessarily affect the information received by an audience as other factors may be equally important; the aim is not to say organization is unimportant, but rather that there are not hard rules and no one study has all the answers to any area of communication.

As many as ten studies may be "replicated" in the course to examine factors such as eye contact, source credibility, voice characteristics, group influence, and feedback. Throughout these experiments, the students modify the designs and examine speech communication in various settings in and out of school.

A Three Year Assessment

The final section of this paper will discuss what appear to be the limitations and values of the approach based upon three years of experience with it. The course was introduced in a 600 student high school (grades 9-12) located in a mountain resort of Southern California. Only about 50% of the students enter college and only a small percentage of that group ever complete a four year college program. There is only one, semester-long Oral Communication course offered in the school. Within this school environment certain problems or limitations have become apparent.

First, the teacher need not be an experimental researcher, but must be able to critically read the studies and understand basics of design, control, sampling, and statistics. Help in this may be available by "teaming" with another teacher (say science or social studies). Teachers may also be able to meet the needs of this approach through in-service work or advanced degree study. In the meantime, simply skimming and keeping in your desk drawer a copy of Fred Williams, Reasoning With Statistics (Holt, Rinehart & Winston, $4.95 list) will be helpful as a handbook for those who lack statistical background.

A second area of difficulty was that the students' conception of science was very narrow and attempts to stimulate the students to apply

some of the concepts of science to communicative behavior proved difficult and frustrating at the outset. During the first year only a few examples were presented in the attempt to exemplify scientific method. During the second year more examples were used and the basic material on scientific method was presented more slowly.

Another limitation was the lack of flexibility in time and staffing. There were days when a two hour time period could have been utilized; at other times 30 minutes was adequate. Related to the time problem was the problem of bringing teachers from math and science into the speech classroom and allowing the speech teacher to go to their classes. With more flexible time scheduling will come, hopefully, more interdisciplinary cooperation.

In spite of these difficulties, there were several positive aspects of the approach. Initially, the most important positive aspect was the student's improved awareness and concern for communication. The students were able to talk more intelligently about the components of a communication situation and the implications of those components to the world around them. At least once a week students would come to the teacher to talk about problems with other teachers and friends, and invariably, the student would note accurately some part of the problem related to a communication factor like those covered in class.

A second encouraging aspect was the apparent enjoyment the students experienced from coming to class and their willingness, after some initial hesitation, to work at the subject. On the average there would be at least one written and one oral assignment per week. With very few exceptions, these projects appeared on time and showed effort and careful

consideration.

There were also positive changes in actual student communicative behavior. First, the students were much more relaxed in their presentations. In talking with various students about the reason for this, most of them indicated that so much discussion had been conducted on the experiments that they felt little hesitation about talking in front of the class. Second, the topics that were chosen for their presentations were more meaningful or timely (to both teacher and students) and often grew out of class discussions. The students wanted a chance to do additional research on many of the topics discussed and often used those topics as the subject of their presentations. In sum, student interest and effort was high during the course and communicative awareness and behavior was greater for most as a result of the course.

Students seem to be enrolling because of genuine interest in the class and enrollment has grown from one section of 25 students to two sections of 31 and 38 respectively. The experimental activities course approach has been and continues to be an enjoyable and profitable venture for teacher and students alike. Hopefully, others will "experiment" with it and find it equally profitable.